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COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the Transport of Dangerous Goods
(Fourteenth session,
Geneva, 8-19 December 1997,
agenda item 4 (b))

GLOBAL HARMONIZATION OF SYSTEMS OF CLASSIFICATION AND LABELLING OF CHEMICALS

Physical Hazards

Joint ILO/UN Working Group on harmonized classification criteria for flammability and reactivity

Explosive properties

Transmitted by the Expert from Sweden

Introduction

During the previous meeting of the working group several delegates expressed their concern about products whose classifications are dependent of the packaging and mode of handling. If the harmonized classification system is based upon the transport packaging there is a great risk that the intrinsic properties of the products will be unrecognised. However, the discussions during the meeting were somewhat restrained since none of these delegates had put theirs thoughts on paper. The delegates were called upon to make written statements about theirs views and the Swedish delegate confirmed that he would do so.

Examples

To make this paper less academic we have chosen 3 products to exem plify our concerns. These products are Detonators. Nitrocellulose (nitrogen content > 12.6% and wetted with alcohol or water) and Airbags. All of them are products that have explosive properties and the classifications ar e dependent on the packaging, mode of handling an d for the Nitrocellulose the amount of water/alcohol that are used to wet it.

Product	Transport		Other than transport	
	Possible Classifications		Possible Classifications	
	Packaged	Non-packaged	Packaged	Non-packaged
Detonators	1.1B 1.4B 1.4S	N.A.	1.1B 1.4B 1.4S	1.1.B
Airbags	1.4G 1.4S 9	N.A.	1.4G 1.4S	1.4G
Nitrocellulose, with < 25% water	1.1D	N.A.	1.1D	1.1D
Nitrocellulose, with < 25% alcohol	1.1D	N.A.	1.1D	1.1D
Nitrocellulose, with not less than 25% water	4.1	N.A.	1.1D	1.1D
Nitrocellulose, with not less than 25% alcohol	1.3C	N.A.	1.3C	1.1D

Note N.A. = Not allowed

Discussion

As the table above clearly illustrates we cannot avoid the fact that a products classification will b e variable during the different modes of handling and o nce we open the packaging another change could occur.

This means that we have to bear in mind the fact that all transport-classifications are made with the product "as presented for transport". However, once the transport comes to an end there is a possibility that the classification will change.

In Sweden we have recognised the problem and where applicable we suggest the use of tw o classifications, one for transport and another one for all other modes of handling.

The purpose of this paper is to illustrate the problem, which, for example, is rather common fo r explosives and de-sensitised explosives.

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GLOBAL HARMONIZATION OF SYSTEMS OF CLASSIFICATION AND LABELLING OF CHEMICALS

Physical hazards

Explosive properties

Definition for pyrotechnic articles

Transmitted by the Expert from Germany

Justification

Definitions for the hazard category "explosive" will be based on t he UN Recommendations on the Transport of Dangerous Goods. In paragraph 2.1.1.3 (a) of the Recommendations, a n explosive substance is defined and explanation given that pyrotec hnic substances are included into this definition.

On the other hand, in paragraph 2.1.1.3 (b), an own definition is needed for pyrotechnic substance s in connection with the proper assignment of pyrotechnic articles specifically to U N Numbers 0428 to 0432 fo r articles, pyrotechnic for technical purposes and UN Numbers 0333 to 0337 for fireworks.

In paragraph 2.1.1.3 (c) of the Recommendation, an explosive article is defined to be an article containing one or more explosive substances.

A respective definition of a pyrotechnic article is lacking. Only in Appendix B of the Recommendations (Glossary of terms) are some further explanations given.

Therefore, in paragraph 42 of the report of the UN/ILO Working Group on harmonized classification criteria for physical hazards (ST/SG/AC.10/C.3/26/Add.3), the representative of Germany has been invited to submit a respective official proposal.

Proposals

1. In the globally harmonized system for the classification and labelling of dangerous substances and goods the following definition should be used:

   A pyrotechnic article is an article containing one or more pyrotechnic substances.

2. The UN Recommendations on the Transport of Dangerous Goods should be amended accordingly by inserting a respective paragraph 2.1.1.3 (d).